

4.6 cont'd

1. Given:  $\angle 1 \cong \angle 2$ ;  $\angle 5 \cong \angle 6$   
Prove:  $\angle 3 \cong \angle 4$

Statements	Reasons
1. ~	1. Given
2. $\overline{AC} \cong \overline{AC}$	2. Refl.
3. $\triangle ABC \cong \triangle ADC$	3. ASA
4. $\overline{AB} \cong \overline{AD}$	4. CPCTC
5. $\overline{AE} \cong \overline{AE}$	5. Refl.
6. $\triangle ABE \cong \triangle ADE$	6. SAS
7. $\angle 3 \cong \angle 4$	7. CPCTC

2. Given:  $\overline{GE} \cong \overline{GF}$ ;  $\overline{EH} \cong \overline{JH}$   
Prove:  $\overline{EH} \cong \overline{JH}$

Statements	Reasons
1. ~	1. Given
2. $\overline{GF} \cong \overline{GF}$	2. Refl.
3. $\triangle GEF \cong \triangle GFJ$	3. SSS
4. $\angle 5 \cong \angle 6$	4. CPCTC
5. $\overline{HF} \cong \overline{HF}$	5. Refl.
6. $\triangle EHF \cong \triangle JHF$	6. SAS
7. $\overline{EH} \cong \overline{JH}$	7. CPCTC